

# Inside Wallops

National Aeronautics and Space Administration Goddard Space Flight Center

Wallops Flight Facility, Wallops Island, Virginia

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### Congratulations Goddard Team on ISO Success

The audit by DNV is completed and I'm very proud to tell you that the auditors are recommending the Goddard Space Flight Center for certification.

We've planned, worked for and now completed the critical phase of the Center's certification for ISO9001. Many people have dedicated countless hours to organize, document, communicate, review and map out Goddard's reach for this highly respected standard.

I've asked for everyone's support and participation to help us achieve this prestigious recognition and am very happy that so many did contribute their interest and attention.

Nearly every employee participated in some manner to this effort. At risk of overlooking the scores of names that I know accepted leadership roles, I want to publicly recognize the Quality Management System Council for their steadfast commitment and outstanding leadership. They kept us on track and made many sacrifices to sustain a dedicated commitment to achieve this special recognition.

In addition, I want to thank Dave Cleveland for his steadfast management and Charlie Vanek for his leadership in helping us achieve this goal. Thank you. We couldn't do it without you!

Once again, thank you all and congratulations.

Al Diaz

### Experimental X-34 Rocket Plane to Begin Extensive Testing

NASA's experimental X-34 rocket plane will undergo testing in New Mexico, California and Florida under a test plan recently approved by Agency officials. Both schedule and cost implications are currently being evaluated.



To support the expanded flight test program, engineers from NASA's Dryden Flight Research Center and Orbital Sciences Corporation, Dulles, VA, NASA's contractor for X-34 will upgrade the first airframe, designated A-1A, for flight. Following a series of tow tests on the ground at Dryden, the A-1A will be used to conduct unpowered test flights from Orbital's L-1011 carrier aircraft at the White Sands Missile Range, NM.

At the same time, Orbital will complete assembly of the second X-34, designated A-2. Its Fastrac rocket engine will be installed on the vehicle and test fired on the ground at Holloman Air Force Base, NM. After these ground test firings, the first series of powered flight tests of the X-34 will take place at Dryden.

The A-2 vehicle then will be shipped to NASA's Kennedy Space Center for a second series of flight tests. These flights, which will reach speeds of up to approximately Mach 4.5, will demonstrate rapid turnaround flight operations. Demonstrations of autonomous crosswind landings and flight through rain will also be part of this testing.

Dryden and Orbital will complete the remainder of the test program, which involves the third X-34, designated A-3. These test flights will expand the plane's maximum capability of speeds up to Mach 8 and altitudes up to 250,000 feet, while also testing additional reusable launch vehicle technologies as carry-on experiments.

The unpiloted, reusable X-34 is designed to demonstrate technologies and operations necessary to cut the cost of putting payloads into orbit from \$10,000 to \$1,000 per pound. Orbital has an \$85.7 million contract with NASA to design, build and test fly three X-34 vehicles.

The winged, single-engine X-34 is 58.3 feet long. It has a 27.7-foot wingspan and stands 11.5 feet tall. It will be powered by a reusable Fastrac engine, designed and developed by Marshall engineers and built by NASA's industry partners.

The X-34 is designed to be air-launched from beneath Orbital's modified L-1011 carrier plane and make an automated landing on a conventional runway and be readied for its next flight.

### NASA, Thiokol Complete Shuttle Motor Agreement

NASA and Thiokol Propulsion of Brigham City, UT, have completed negotiations for a contract worth up to \$1.73 billion for 73 Space Shuttle reusable solid rocket motors. The motors are the primary component of the Shuttle solid rocket boosters, providing 6.6 million pounds of thrust or 71.4% of what the Shuttle needs for liftoff.

The contract calls for manufacture and delivery of the new motor components to NASA's Kennedy Space Center to begin this fall and continue through September 2004. Thiokol also will conduct post-flight review of the last motors flown, carrying the contract through 2005. In addition to 35 sets of flight motors, the contract includes three motors that will be used in ground testing to ensure quality and prove new materials, manufacturing techniques and hardware suppliers.

The original solid fuel motor was redesigned in 1986. Each motor is about 126 feet long and 12 feet in diameter and contains 1.1 million pounds of propellant. The propellant is mixed and then cast in four hollow, cylindrical metal casings. When it solidifies, it has the color and consistency of a pencil eraser. A forward dome containing the igniter and an aft dome with a steerable exhaust nozzle are attached. The motors burn for about 123 seconds before they burn out and are jettisoned to descend by parachute into the Atlantic Ocean.

During flight, each motor puts out the equivalent of about 15.4 million horse-power. The solid fuel motor's combustion gas temperature approaches 6,000 degrees Fahrenheit.

# Wallops Shorts.......... Balloon Launch

A NASA scientific balloon was successfully launched from Ottumwa, IA, on Aug. 21. The 1.507 million cubic foot balloon carried a plasma physics experiment to measure the electromagnetic fields and very low frequency radio emissions associated with the production of visable light emissions above thunderstorms. Dr. Edgar Bering, University of Houston was the principal investigator. Total flight time was 11 hours, 34 minutes.

Sounding Rocket Launch

A NASA Terrier-Black Brant sounding rocket was successfully launched and recovered from the White Sands Missile Range, N.M., on Aug. 24. The galactic astronomy experiment was to obtain high resolution spectra produced by triply-ionized carbon from the Cygnus Loop supernova remnant. Dr. Fred Roesler, University of Wisconsin was the principal investigator.

### Annual Beach Cleanup Scheduled

The annual beach cleanup on Wallops

Island is scheduled for Saturday, Sept. 18. Every year litter of all types washes ashore. Items picked up during beach cleanups can be especially dangerous to marine mammals



and fish. Balloons, plastic bags and fragments of plastic can be mistaken for food by sea turtles and other animals.

Once again, data sheets will be provided to participants to record the types of trash collected. This information will be furnished to the Center for Marine Conservation and incorporated into a database which tracks pollution problems worldwide.

The annual beach cleanup effort is sponsored by the Center for Marine Conservation and offers a great opportunity to help the local environment and enjoy nature. While doing the cleanup last year, we saw a red fox and found the remains of a sea turtle's nest.

NASA, Navy and contractor employees and their families have volunteered for past cleanups. This year we will be joined by volunteers from Coast Guard Group Chincoteague. Participants will receive a free, long-sleeve cotton T-shirt, courtesy of Conectiv, one of the sponsors of the cleanup.

Volunteers will meet at 9 a.m. in the parking area adjacent to the Island Gate. Volunteers are encouraged to bring, water, a hat, sunscreen, comfortable shoes, bug repellent, and gloves. Transportation to the beach, trash bags and data sheets will be provided.

Teams will be assigned a section of beach to clean from the north end of Wallops to the dune access area — first camera station. The entire cleanup is usually completed by noon.

Anyone wishing to join in the beach cleanup is requested to register by calling Betty Flowers, x1584 or Keith Koehler, x1579.

### Protective Eyewear

It is the policy of the NASA/Goddard Space Flight Center to provide protective eyewear to civil servants involved with operations where there is a reasonable probability of eye injuries.

The Safety and Environmental Branch administers an Occupational Vision Program which provides prescription safety eyeglasses to civil servants who operate equipment or are involved in processes which present potential eye injuries from physical, chemical or radiation agents. Employees can obtain further information by calling the WFF Health Unit at 1336.

### Conflict Resolution

The Employee Assistance Program's topic for September is "Conflict Resolution" with guest speaker, Dr. Chris Garner. The workshop is scheduled for 9 a.m., Sept. 8, in Building F-160, Room C164.

The presentation will focus on common sources of conflict, personality characteristics of "difficult people" and how to minimize the impact of their actions on other people. The discussion will highlight conflict resolution strategies to use in the workplace as well as in day to day activities. Resources and a recommended reading list also will be made available.

The group format is informal. Seating is limited. Call the EAP, x66-4600 to reserve a seat.



Dr. Dolores Spikes, (above) President of the University of Maryland Eastern Shore was guest speaker at a luncheon held on Women's Equality Day, Aug. 26. Dr. Spikes spoke to the gathering about "The Road to Equality". The Women of Wallops Federal Women's Program sponsored the luncheon.

Digital Photo by Tom Burton.

Youth Program Begins

The Saturday Youth Program will begin on Sept. 18. Wallops Exchange and Morale Association (WEMA) members who have children between the ages of 5-12 interested in participating should contact Dave Smith, x1316 or Sam Hall, x1065. The Saturday Youth Program is sponsored by the Wallops Black History Club.

**For Sale** - Lowrey Organ, Model the Pageant with Magic Genie, Model M-150 Series. Circa late 80's. Can be seen by calling (757) 824-5117.

For Sale - 1965 Thunderbird. Body has been repainted original color. Motor has been reworked but needs to be reassembled. Needs a new headliner and complete assembly. Call (757) 824-5117

**For Sale**: 1996 Honda Prelude, fully loaded, sunroof, 72,000 miles. Call (757) 824-5353.

Take a break on Labor Day, September 6.



# According to FEDweek Aug. 25 issue.....

#### 'Typical' Fed

The average federal employee is 45.7 years old with 16.7 years of service. Nearly 40% of the work force has at least a bachelor's degree or higher. That's the word from the Office of Personnel Management, keeper of such statistics. All statistics, including those appearing below, are as of March 31, 1999.

#### Gender, Race and Other Stats

OPM notes that men comprise 55% of the work force. Minority group members make up 30.2% of the federal work force, including: 17.1% African American; 6.5% Hispanic, 4.5% Asian/Pacific Islander and 2.1% Native American.

#### Military Background Stats

Vietnam era veterans comprise 14.2% of the federal, nonpostal work force, according to OPM. The work force is 24.8% veteran.

# Average Pay: \$46,000 Worldwide (\$60,000 in D.C.)

The average annual pay, including locality adjustments, for federal employees throughout the world is \$46,550; \$59,745 in the Washington D.C. If only full-time permanent employees are counted, the averages are, respectively, \$48,094 and \$60,859.

### Average GS Grade 9.4

The average general schedule grade is 9.4 worldwide. It's considerably higher in the Washington D.C. area, as the average salary item above hinted: 11.2. The federal work force is 72.3% general schedule and 13% wage grade. Employees under the special rate system for hard-to-fill jobs comprise another 8.9%. OPM classifies the remainder as "other."

#### Labor Stats

About 75% of the work force is eligible to join unions. Nearly 60% of those eligible are represented. Of the total labor force, 10.9% is supervisory or managerial.

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